

Task 2 – Groundwater Management Plan Assessment

California Water Plan Update 2013 Groundwater Content Enhancement

Groundwater Management Plans

GWMP Inventory Status:

- 156 Individual Documents
 - 126 Groundwater Management Plans
 - 23 Adjudications
 - 1 Ordinance
 - 6 Other Types
 - Includes 12 pending
- Shapefiles
 - 148, with 8 pending

Groundwater Management Plans

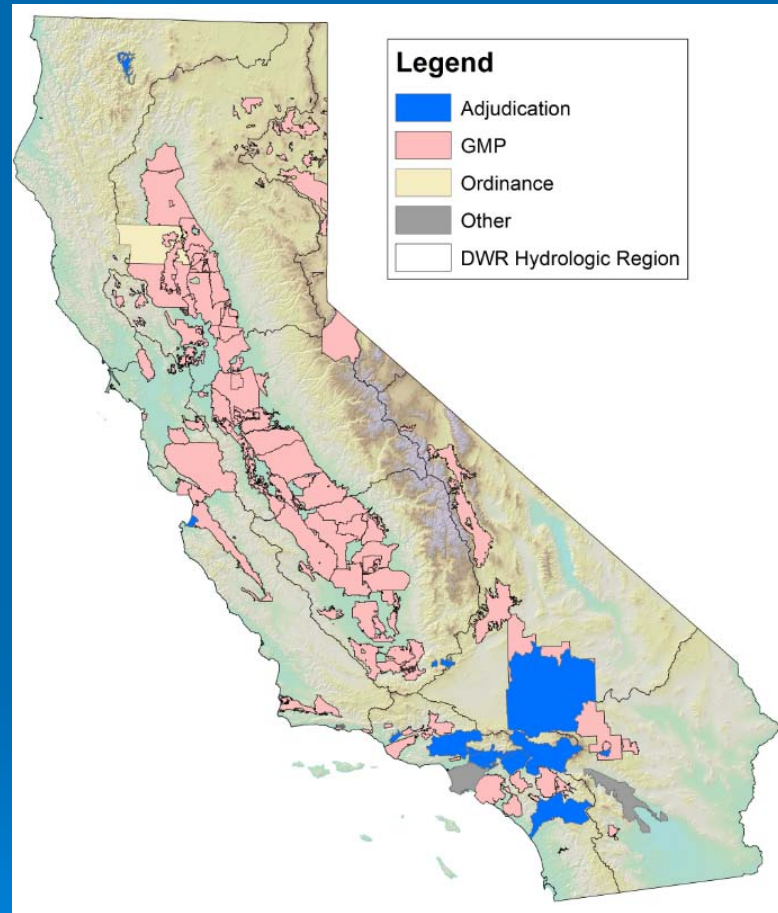
Challenges in collecting plans:

- Identifying Groundwater Management Plans
 - Watermaster Management Plan, Strategic Plan, Water Management Plan, Regional Watershed Management, Basin Optimization Plan
- Relationship between GMPs and Ordinances, Resolutions, and Adjudications
- Plans are not always available on web-sites; requires personal contact which can be time consuming for both parties

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Groundwater Management Plans



126 GWMPs , 23 Adjudications, 1 Ordinance, 6 Other
As of 2012

Groundwater Management Plans

Challenges in reconciling Shapefiles:

- Plan area not well defined
- Adjudications are not necessarily basin boundaries
 - Legal descriptions
- Outdated plan coverage areas
- Some districts do not maintain their shapefile
- Groundwater Basin versus Watershed or River Basins

Groundwater Management Plan Assessment

- GWMPs Assessed for...
 - CWC 10753.7 (SB 1938) Required Components
 - CWC 10753.8 (SB 1938) Voluntary Components
 - Bulletin 118-03 Suggested Components
- Finished 110 of 126 GMP assessments
- For this presentation, we focused only on the Required Components and the related ACWA survey responses

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ACWA Survey

- 61 Survey Respondents
- Questions relating to:
 - Agency Information
 - Groundwater Management Plans
 - Key components that are being implemented
 - Factors that limit success
 - Long term sustainable and reliable groundwater
 - Groundwater Banking Activities
 - CASGEM Participation

Groundwater Management Plan Assessments

	CWC § 10753.7 <i>et seq.</i> Required Components					
	1	2	3	4	5	6
	Barin Management Objectives	Agency Cooperation	Map	Recharge Area (1/1/2013)	Monitoring Protocols	GWHPs Outside GW Barin
	The plan shall include components relating to the monitoring and management of groundwater levels within the groundwater barin, groundwater quality degradation, inelastic land surface subsidence, changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater pumping in the barin, [and a description of how recharge areas identified in the plan substantially contribute to the replenishment of the groundwater barin]	The local agency shall prepare a plan to involve other agencies that enable the local agency to work cooperatively with other public entities whose service area or boundary overlies the groundwater barin	The local agency shall prepare a map that details the area of the groundwater barin, as defined in the department's Bulletin No. 118, and the area of the local agency, that will be subject to the plan, as well as the boundaries of other local agencies that overlie the barin in which the agency is developing a groundwater management plan	(A) Include a map identifying the recharge area for the groundwater barin. (B) The local agency shall provide the map required pursuant to paragraph (A) to the appropriate local planning agency after adoption of the groundwater management plan. (C) Upon submitting a map pursuant to paragraph (B), the local agency shall notify the department and all persons on the list established and maintained pursuant to subdivision (c) of Section 10753.4. (D) For purposes of this paragraph, "map identifying the recharge area" means a map that identifies, or maps that identify, the current recharge area that substantially contribute to the replenishment of the groundwater barin <u>No evaluation at this time</u>	Adapt monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for barins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater pumping in the barin. The monitoring protocols shall be designed to generate information that promotes efficient and effective groundwater management	Local agencies that are located in or outside the groundwater barin delineated on the latest edition of the department's groundwater barin and rubbin map shall prepare groundwater management plans incorporating the components in this subdivision, and shall geologic and hydrologic principles appropriate to the area
GWMP, Adjudication, Ordinance, or other						
GWMP Assessment	Partial	Yes	Yes		Yes	N/A
Supporting Paragraph	Narrative 15-16, 3-2	p1-4	p2-2		p3-2	
ACWA Survey Response Did not Participate						
GWMP Assessment	Yes	Yes	Partial		Partial	N/A
Supporting Paragraph	p3-1	p3-14, p3-15	not complete map of other barin agencies Fig 1-1 & 1-2		All but quiz, p3-2 - p3-5	
ACWA Survey Response Larson Peak Water Agency	A Monitoring Plan for the BMOs, BMO, BMO: Groundwater Levels, BMO: Groundwater Quality, BMO: Inelastic Subsidence	No Response	Yes	No	Yes	No Response
GWMP Assessment	Partial	Yes	No		Partial	N/A
Supporting Paragraph	p4-5, narrative, surface water, BMO	P/P p7			narrative, surface water, BMO, P/P, p4-5	

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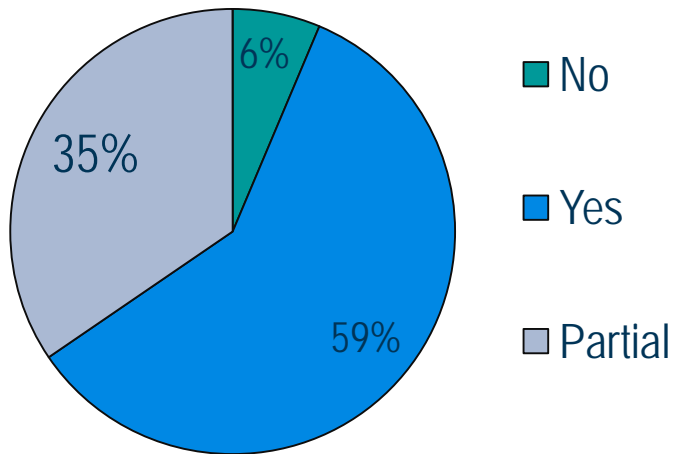
GWMP Required Components Assessment, CWC 10753.7

1. Basin Management Objectives
2. Agency Cooperation
3. Map
4. Recharge Area (as of 1/1/13)
5. Monitoring Protocols
6. GWMPs Outside of a Groundwater Basin

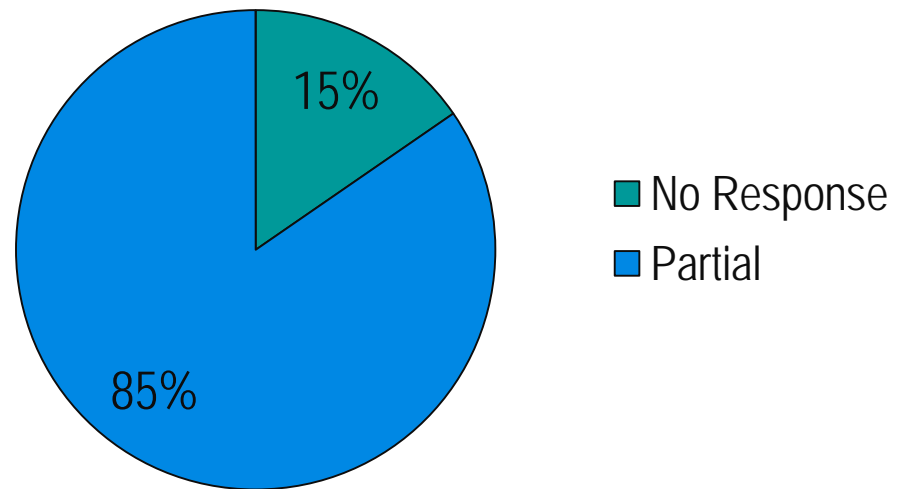
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Basin Management Objectives

GWMP Assessment - 110 Plans



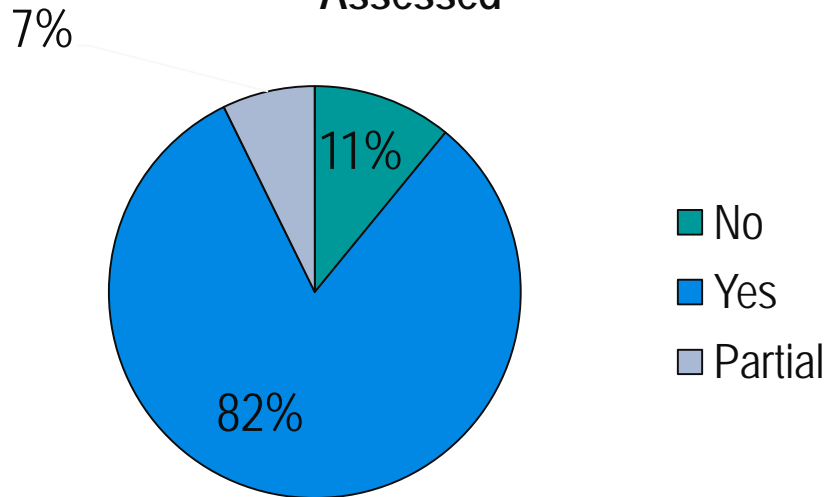
ACWA Survey - 52 Responses



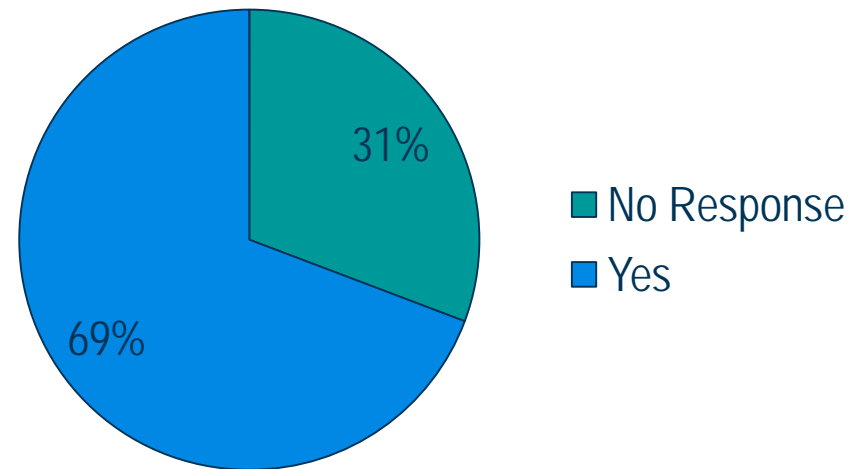
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Agency Cooperation

GWMP Assessment - 110 Plans
Assessed



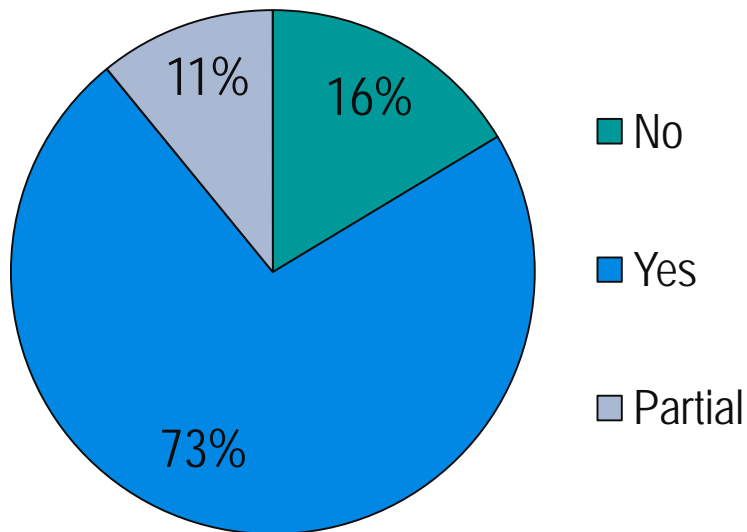
ACWA Survey - 52 Responses



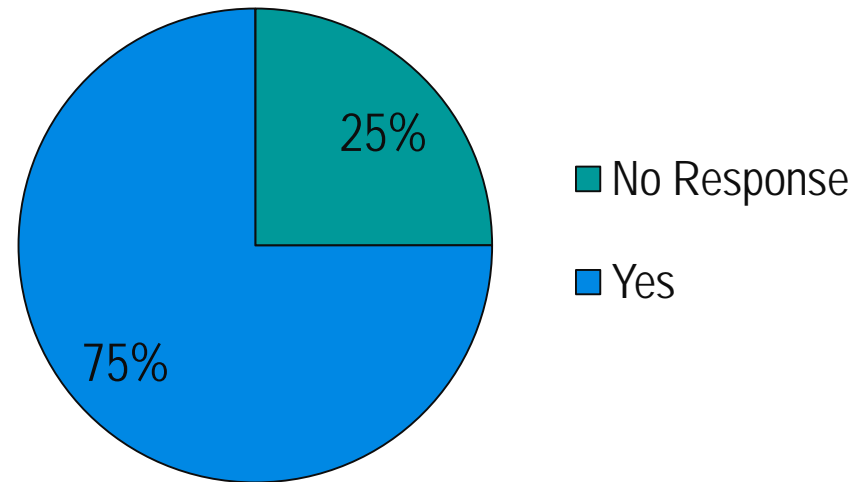
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Map

GWMP Assessment - 110 Plans
Assessed



ACWA Survey - 52 Responses



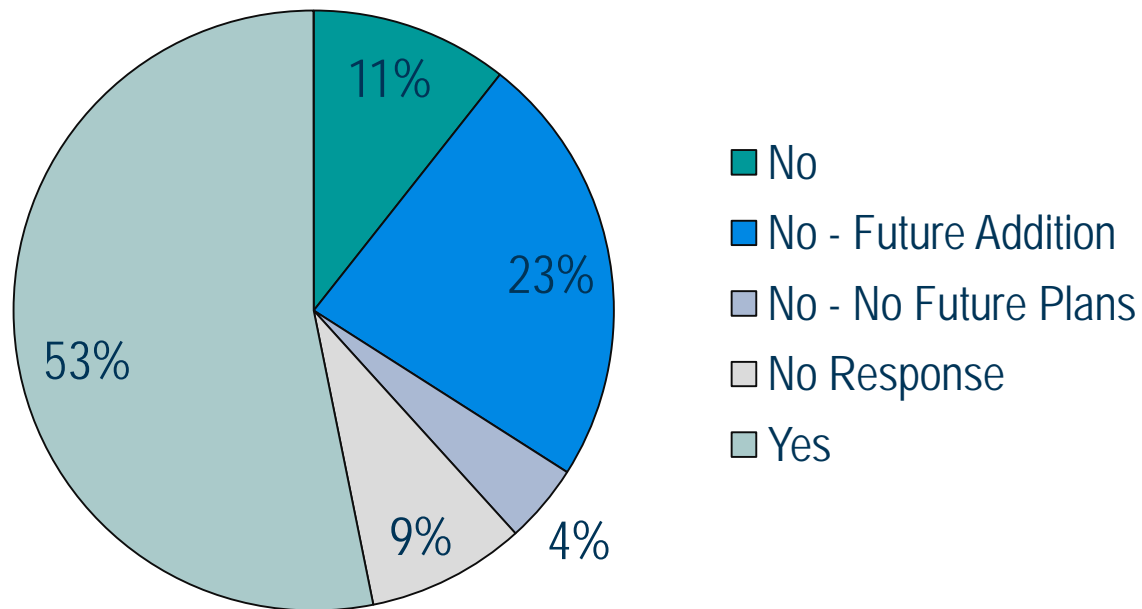
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Recharge

(will be assessed after Jan, 1, 2013)

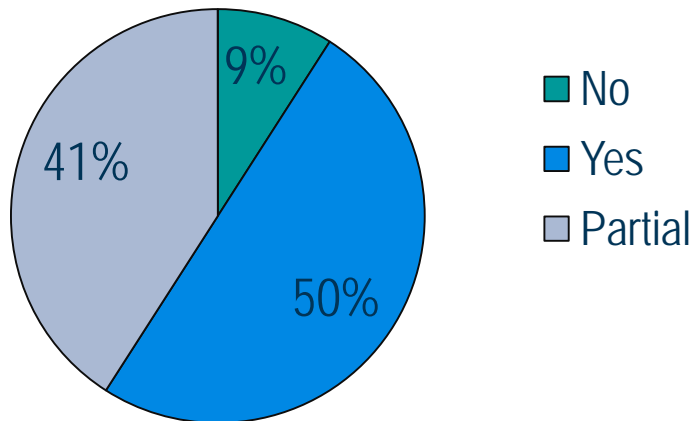
ACWA Survey - 47 Responses



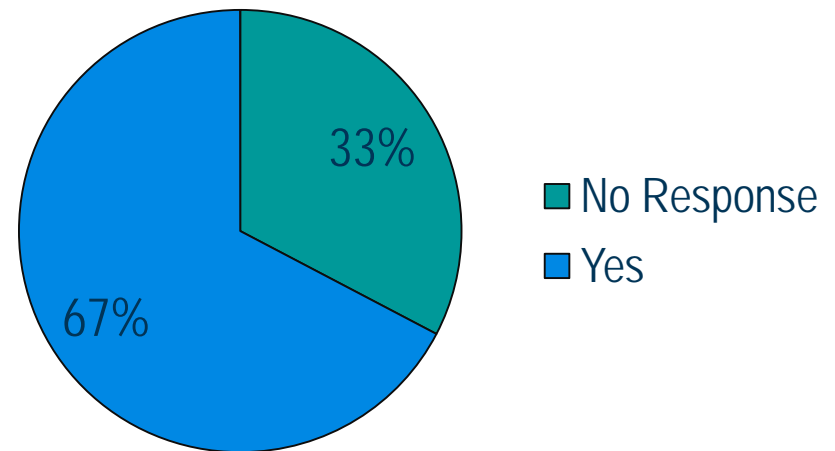
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Monitoring Protocols

GWMP Assessment - 110 Plans
Assessed



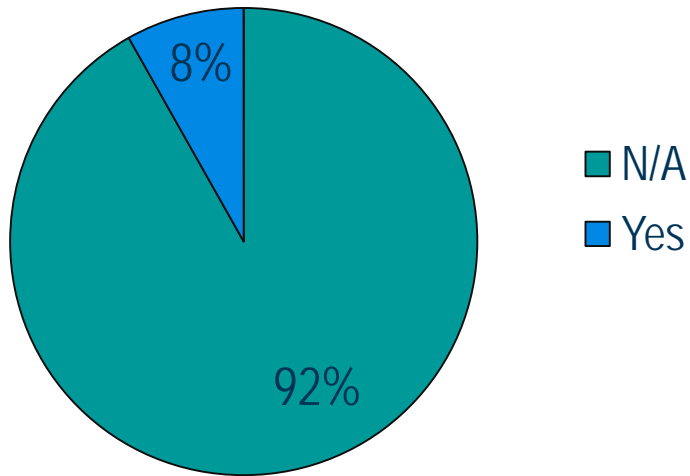
ACWA Survey - 52 Responses



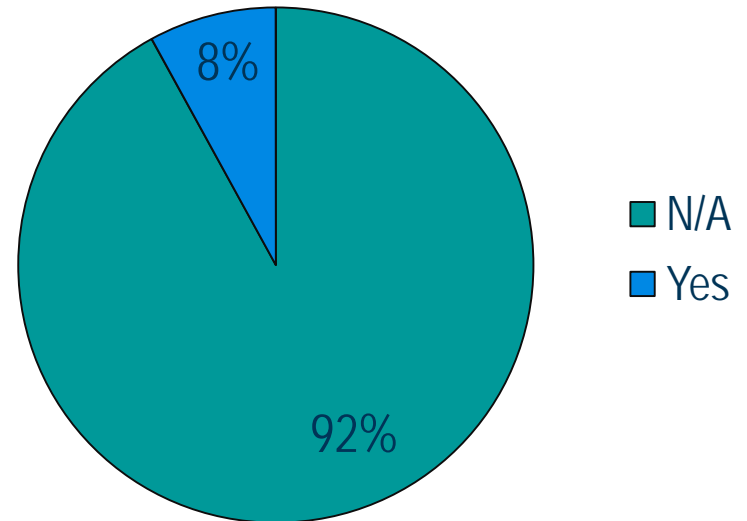
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GWMP Outside of Basin

GWMP Assessment - 110 Plans
Assessed



ACWA Survey - 25 Responses



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ACWA Survey - Other Questions

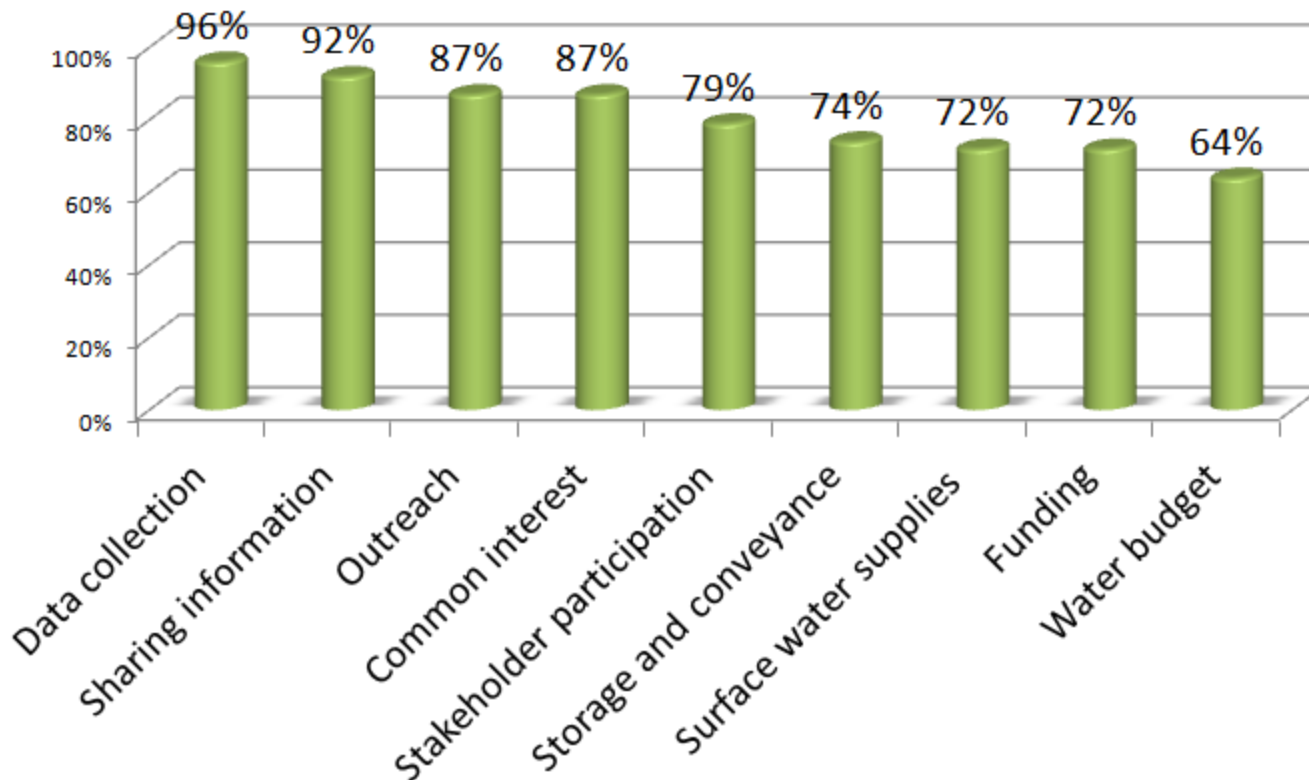
- What Key components are currently being implemented by each agency?
- What are the factors that are limiting the successful development of sustainable groundwater management?

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Key Components of local groundwater management being implemented by each agency

56 survey respondents

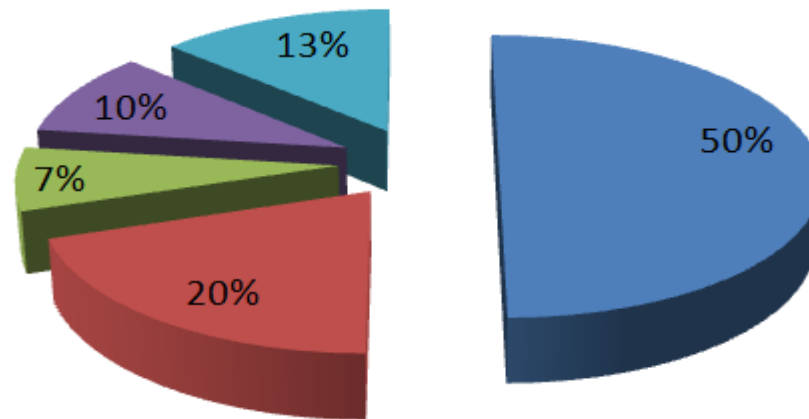


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Factors Limiting The Successful Development of Sustainable Groundwater Management

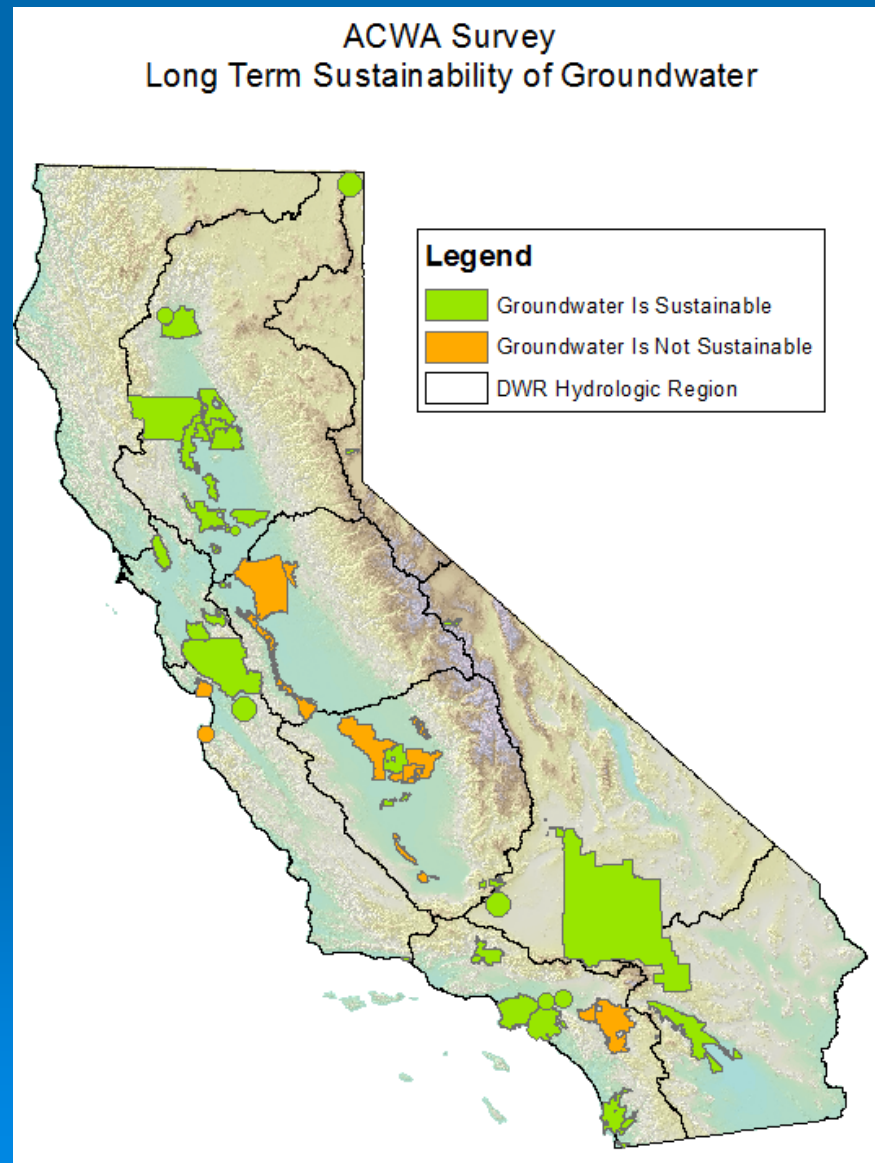
46 Survey respondents



- Limited Funding
- Physical Limitations
- Limited Data and Analysis
- Groundwater Policy
- Public Involvement

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Questions?

